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ABSTRACT

Self-regulated learning is defined as the ability of a child to learn independently of a teacher or parent. Self-regulated learners require knowledge of a topic, basic skills for learning, and motivation. Self-regulated learners distinguish themselves from other learners in that they are aware of themselves as learners and have an awareness of the learning process. Teachers are encouraged to help students develop basic skills, motivation, and knowledge while encouraging them to reflect on their own knowledge and use of skills. (Contains 21 references.) (Author/RS)

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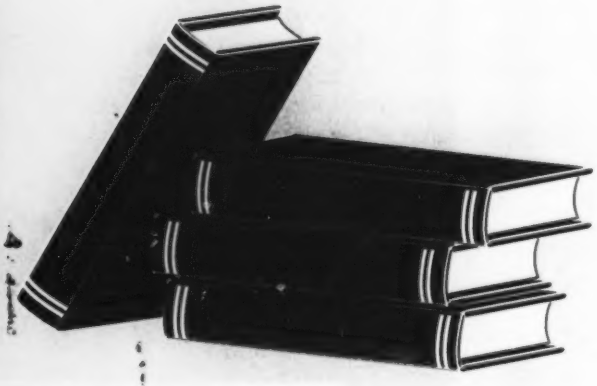
Teaching Children to Self-Regulate:

A Resource for Teachers



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Abstract *Self-regulated learning is defined as the ability of a child to learn independently of a teacher or parent. Self-regulated learners require knowledge of a topic, basic skills for learning, and motivation. Self-regulated learners distinguish themselves from other learners in that they are aware of themselves as learners and have an awareness of the learning process. Teachers are encouraged to help students develop basic skills, motivation, and knowledge while encouraging them to reflect on their own knowledge and use of skills.*

What is a Self-Regulated Learner?

Self-regulated learners possess strategies, skills, and knowledge that many other children have, but they also possess a self-awareness about themselves as learners and an awareness of the learning process. According to Zimmerman (1990), self-regulators differ from other children in that they are aware of the purpose of their strategy use and have goals for their strategy use. These children also take advantage of feedback by looking at whether they have accomplished their goals. Because self-regulators reflect on their progress and limitations to their progress, they can change or regulate strategies and skills that are not working. They are, therefore, in a position in which they can develop new skills and knowledge on their own—they can self-regulate. It is not surprising that self-regulation significantly predicts achievement (Pintrich & De Groot, 1990; Zimmerman & Pons, 1986).

What are the Components of Self-Regulation?

A self-regulator must have good basic cognitive skills. In order to self-regulate, children need to have already developed automated basic skills, for example, basic decoding skills. If children are still at a point at which they must spend considerable effort doing basic skills, such as decoding, they cannot spend that time regulating their cognitive activities. As a result, it is very rare to find a young child who can self-regulate, but is not impossible that a young child can self-regulate. Some children may have sufficiently mastered basic skills to take on self-regulatory skills.

The ability to self-regulate is based in several interrelated components including a well-developed knowledge base, the possession of good basic strategies, motivation to learn, and the possession of regulatory strategies. The development of one component is frequently related to the development of another component. For example, children's strategy use, both basic and regulatory, is connected to the development of topical knowledge. It would be difficult for a child to cluster types of dinosaurs if that child does not even have the knowledge about dinosaurs. The more complex the knowledge, the more complex the strategies. Similarly, many people assume that we develop expertise in topic areas because we are motivated by interest. This assumption still needs to be investigated, but it is highly likely that individuals who spend years learning about a topic also have commensurate interest.

A Self-Regulator is Knowledgeable

Intelligence (IQ) plays a little role in children's strategy use in comparison to knowledge. Topical knowledge is particularly influential in children's use of strategies (Alexander & Schwanenflugel, 1994). The depth and quality of knowledge determines the types of strategies and approaches to problem solving that children are capable of using (Alexander & Judy, 1988). It also affects children's ability to remember information about that topic (Alexander, Kulikowich, & Jetton, 1994).

To be self-regulators, children must develop enough knowledge about a topic to allow them to use different strategies. For example, if children are going to be strategic by grouping types of animals they must have some knowledge about how and why animals would be grouped in a given way. Some children have sophisticated knowledge about animals, for example, knowledge about whether the animals are vegetable or meat eaters. Other children may have only superficial knowledge about animals, for example, they may group by the color of the animal. A part of becoming self-regulating is becoming knowledgeable about a topic, shifting from a superficial understanding of a topic to a sophisticated, well-organized understanding.

A Self-Regulator has Basic Strategies and Metacognition

According to Zimmerman (1986), self-regulators have many basic strategies such as knowledge about rehearsal and memorization strategies, knowledge about how to review notes, tests, and texts, and to reorganize information to better learn it. Self-regulators also develop strategies based on knowledge of their own motivations and learning preferences. For example, these students create learning envi-

ronments that they know are conducive to their own learning.

As children develop a more elaborate knowledge of a topic area, they can also learn about how basic strategies can be applied to that area. Knowledge about how, why, when, and when not to use a strategy or skill should be included in the instruction. These basic strategies can be modified by the teacher to fit the topic area, but it is up to the teacher to get the children to use the strategy independently. That is, giving the children enough information and practice with a strategy to allow the children to decide to use the strategy on their own without the teacher prompting the strategy use.

A Self-Regulator has Regulatory Strategies

Self-regulators are distinguished from their peers in that they are able to set their own goals (Schunk, 1991), make plans to achieve these goals, and monitor their successes and failures in achieving goals. Critical to this ability to set and achieve goals is their ability to get and use information about their performance and about the task (Butler & Winne, 1995). Children who monitor the effectiveness of their strategies and problem solving techniques have the opportunities to reevaluate goals, strategies, and even their monitoring techniques—they are able to self-evaluate with little or no help from a teacher. This capacity can be critical in children's ability to benefit from text. For example, children will be unable to find or fix problems in text if they are not actively looking for possible problems (e.g., if they are not determining whether the text is informative; Beal, 1987). Children's ability to fix comprehension problems in text, in turn, is dependent on their ability to pick out the problem (Beal, 1990).

Children may not develop regulatory strategies because these strategies are dependent on the existence of automated basic skills and basic strategies. If children's basic skills are not up to speed and if children do not have basic strategies such as rehearsal and comprehension strategies, there will be little to monitor and regulate. Furthermore, basic skills need to be automatized leaving the student free to focus on regulation. A child with these basic skills and strategies in place will be able to take advantage of frequent feedback to modify their activities. However, a child who is unfamiliar with basic strategies and is just learning basic skills may be frustrated in his or her attempts to take advantage of feedback provided about performance.

Children are not very good at monitoring their text comprehension. This is not to say that it is impossible to get children to monitor. Self-regulation likely develops out of scaffolded instruction from adults (Diaz, 1990). Adults who model monitoring or who prompt children to monitor (Carr & Britton, in press) increase the likelihood of monitoring. Providing children with guided opportunities to work on their own and develop their own skill also increase the chances of monitoring (Grolnick & Ryan, 1989). Thus, the ability to monitor for potential problems and as a means of feedback needs to be scaffolded initially by an adult and shifted to the child as he or she develops the necessary skills and awareness.

Teachers can promote self-regulatory skills by having children think about their goals and how the goals may be achieved through education, having children set realistic goals based on realistic expectations, having children think about what they are doing and why they are doing it, and having kids think through problems, and how to regulate to produce a different outcome (McCombs, 1986). Many of these skills will need to be initially scaffolded by the teacher. At the beginning, the teacher might always have to prompt children to reflect on what they are doing and its outcomes. As children acquire the ability to reflect on their own thoughts, the teacher can gradually withdraw from the process.

A Self-Regulator is Motivated

Self-regulation is intrinsically motivated (Pintrich & De Groot, 1990) in that children monitor and evaluate their own work without the need for a teacher or adult to prompt this behavior. High achievers self-regulate through a number of different motivational techniques (Zimmerman, 1990). For example, self-regulators will create their own rewards and punishments to motivate their achievement. Their intrinsic motivation can also be seen in that they do not appear to worry about looking dumb to others: they will seek help from others in their problem solving when necessary and benefit from these interactions. Self-regulators' control of their own learning results in improved skills, which in turn, provides evidence for positive self-regard.

In order to self-regulate, children must motivate themselves to learn. Teachers have an advantage here in that children enter school being highly intrinsically motivated (Stipek, 1984). Unfortunately, this changes quickly as children progress through the elementary years. We do not know for sure why students lose their intrinsic motivation. Part of it likely occurs because students begin to compare themselves to each other (e.g., Stipek & Daniels,

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1988), they are put in competitive situations (Ames, 1992), and they become extrinsically motivated by grades (Stipek, 1993). Some of this can be lessened. For example, teachers can focus on the controllability of learning, have children take responsibility for good and bad learning (McCombs, 1986). Stipek (1993) also provided a number of suggestions including judging children on their progress toward a set standard as opposed to being compared toward each other, focusing on the process of learning in addition to the outcome, and allowing children to set goals and make some of the decisions in their learning. Nobody is suggesting that teachers give up control of the classroom. Even allowing students to decide which problem to address first can give children a sense of control without having the teacher relinquish control.

Is it Possible to Instruct Children to be Self-Regulating?

This is in many ways a big task, but it is not an impossible task. The development of self-regulatory skills will take time and effort, but it is possible to improve children's skills through instruction. A number of studies have indicated that children can be taught to self-regulate. For example, Graham & Harris (1989) found that self-instructional strategy training improved children's composition skills and heightened children's sense of self-efficacy. Meloth (1990) found that over a school year, children's reflective knowledge about themselves as learners predicted their strategy use and comprehension. The key is patience and realization that self-regulation instruction cannot be a one-shot, short-term project. Instead, think about how you can include self-regulatory skill instruction outlined above in a number of different lesson units across the school year.

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